Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Ohio**

Print Date: **3/9/2000**

Site Summary Level: **Ashtabula Environmental Management Project**

HQ ID: **0229**

Project **OH-AB-02 / Project Management, Site Services, ES&H**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Definition of Scope: Provide the management of available resources to effect the decommissioning of the RMI Extrusion Plant site (OH-AB-01). This includes project management, operation of the project controls system, technical support, site services, quality assurance, administrative services, and training. Establish and operate the site services necessary to operate and maintain the site in a safe condition. This includes security, maintenance and testing of equipment, utilities, and material control and accountability. Implement and operate the project`s ES&H Plan. Ensure the site remains in compliance with applicable State and Federal statutes and requirements. Provide the guidance and methods, including sitewide surveillance and monitoring, to ensure the general protection of on-site personnel, the public, and the environment. Includes the necessary resources to support the NRC`s independent verifications conducted to determine whether the site can be released for unrestricted use.

Technical Approach: Establish the management structure, resources, and control tools needed to plan, budget, authorize, direct, monitor, report, and effect change, as necessary, in the remediation efforts required for the Ashtabula Environmental Management Project. Develop and implement baseline plans and associated policies and procedures that provide for the execution of the project in a safe, cost effective manner that ensures work is conducted in compliance with applicable statutes and regulations.

Project Status in FY 2006:

Complete. Project activities will be completed in FY 2005.

Post-2006 Project Scope:

As noted above, this PBS is complete and closed out in FY 2005; therefore, there is no Post-2006 Scope.

Project End State

The remediation efforts that are conducted in OH-AB-01 will continue with necessary CAMU pump and treat activities into FY 2016. No resources from this PBS are necessary to support that ongoing effort.

Cost Baseline Comments:

The Baseline Estimate was prepared in accordance with Standard Estimating Practices as recommended by the American Society of Professional Estimators. The estimate is structured in a standardized format using estimating relational database software, and is organized by WBS, location, activity and item. The estimate is considered a Title I estimate with an accuracy range of +20% to -10%. Budgets and costs were escalated at 2.7% beginning in FY 2000. Remaining project contingency is included in PBS OH-AB-01 at a total of $4,962K. No costs for Fields Brook PRP for RMI were recorded in FY 1998.

Assumptions: No Fields Brook PRP costs will be recorded for FY 1999. No extensive revisions will be required to the present D&D Plan approved by the NRC, including any requirements created by reduced release limits being promulgated by the NRC for Technetium99, and the present hand-off of day-to-day rad. compliance oversight occurring from the NRC to the Ohio Department of Health (ODOH).

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Project Description Narratives

Safety & Health Hazards:

The facility is being decommissioned to remove contaminated buildings, equipment, soils, and groundwater so the site can be released for unrestricted use. The appropriate S&H administrative functions are included in this PBS to maintain safe and compliant operations during the decommissioning process conducted as part of OH-AB-01.

The following major categories of S&H hazards have been identified that could impact workers, the public, or the environment during site decommissioning: Radiological; Chemical; and Physical.

The buildings, equipment, soils, and a limited area of groundwater are radiologically contaminated and therefore pose a radiological hazard to workers. A small area is also chemically contaminated with trichloroethylene (TCE) which poses a chemical hazard to workers. Physical hazards including demolition hazards, electrical, confined spaces, noise, temperature, lifting, tripping, falls, elevated work areas, and other normal occupational safety hazards related to building deconstruction and soil remediation will persist through the end of the project.

The project has developed a Decommissioning Plan (RDP-ESH-007) which identifies the above general hazards associated with site decommissioning. The plan describes how the hazards will be mitigated so that work can be done safely, with minimal impact to the worker, public, and the environment.

The Decommissioning Plan was approved by the Nuclear Regulatory Commission in September 1997. As part of this approval, NRC developed a Safety Evaluation Report and an Environment Assessment. These documents identify, analyze, and estimate the risk associated with the radiological, chemical, and physical hazards which could potentially occur to site workers, the public, or the environment. These documents outline site hazards which can be expected throughout site decommissioning. The final goal is unrestricted release of the site with all major hazards categories mitigated.

Safety & Health Work Performance:

Physical work activities are controlled at the site through the use of procedures, plans, operational work requests, work instruction packages, and radiation and safe work permits. The primary document for controlling major physical work at the site is the Work Control Process Procedure (RDP-MGT-100). This procedure has been developed to ensure the safe and efficient performance of physical work through the development, approval, and use of detailed procedures describing physical work activities. This procedure relies on the incorporation of relevant portions of the sites Safety Plan (RDP- SAF-100) and the Health Physics Manual (RDP-HP-060). After a work procedure is developed, a hazard assessment is conducted and a Radiation Work Permit (RWP) and Safe Work Permit (SWP) are completed. Workers are trained in the procedure as well as any appropriate health and safety hazards and the appropriate measures to mitigate the hazard (engineering controls, administrative controls, and/or personnel protective equipment). The procedure also may include hold points to verify appropriate health and safety measures are in place. Finally, the facility has a Stop Work Authority Procedure (RDP-QA-106) where any site worker may stop work in the event there is imminent danger to life or health.

Appropriate resources (both costs and skill mix) have been planned for the duration of the project. There are no known unfunded S&H resources at this time.

PBS Comments:

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Project Description Narratives

This Project includes the interface mechanisms and personnel that effect stakeholder interactions, i.e., the formal and informal structures utilized to ensure the project`s stakeholders are apprised and, as applicable, involved with the plans and decisions made for this project and OH-AB-01, and informed of the progress of these projects relative to the plans and decisions.

Baseline Validation Narrative:

The preliminary Decontamination and Decommissioning Design Report was issued on July 26, 1993. Cost and schedule estimates containing the physical D&D effort were prepared based upon the Final Draft Decommissioning Plan dated December 30,1991. These estimates were reviewed and validated by an Independent Cost Estimate (ICE) review team. In 1994, the validated estimates were incorporated into the RMIDP Facility Remediation Plan; the project`s first formal baseline. The project`s budget, including the estimate portion of the RMIDP Facility Remediation Plan, has been validated by the DOE-Ohio Field Office in each subsequent year.

General PBS Information

Project Validated? Yes **Date Validated:** 9/2/1993

Has Headquarters reviewed and approved project? No

Date Project was Added: 12/1/1997

Baseline Submission Date: 7/8/1999

FEDPLAN Project? Yes

Drivers:	**CERCLA**	**RCRA**	**DNFSB**	**AEA**	**UMTRCA**	**State**	**DOE Orders**	**Other**
	N	Y	N	N	N	Y	Y	Y

Project Identification Information

DOE Project Manager: Ward E. Best

DOE Project Manager Phone Number: 440-993-1944

DOE Project Manager Fax Number: 440-993-1961

DOE Project Manager e-mail address: ward.best%ch@ch.doe.gov

Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

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	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	40,696	0	40,696	5,702	5,702	4,880	4,880	5,212	4,762	4,763	4,121	3,964	3,628	3,664	0
PBS Baseline (constant 1999 dollars)	38,613	0	38,613	5,702	5,702	4,880	4,880	5,212	4,637	4,516	3,804	3,563	3,176	3,123	0
PBS EM Baseline (current year dollars)	40,696	0	40,696	5,702	5,702	4,880	4,880	5,212	4,762	4,763	4,121	3,964	3,628	3,664	0
PBS EM Baseline (constant 1999 dollars)	38,613	0	38,613	5,702	5,702	4,880	4,880	5,212	4,637	4,516	3,804	3,563	3,176	3,123	0

	2007	2008	2009	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%	0.00%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.10%	2.10%	2.10%

2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070

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Project **OH-AB-02 / Project Management, Site Services, ES&H**

2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 9/30/2002

Current Projected End Date of Project: 9/30/2005

Explanation of Project Completion Date Difference (if applicable):

The previous projected completion date was actually 12/31/2002. The project, as shown in PBS OH-AB-01, was re-baselined to better reflect current approaches to remediation, and to address the significant reduction in funds per year (up to 40%) that has occurred since the previous baseline was approved in FY 1996. This PBS contains the management, compliance, safety administration, and site services "hotel load" that enables the remediation work to proceed. Because the remediation work now extends for 2 3/4 more years, the associated hotel costs are also extended.

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	28,248	**Actual 1997 Cost:**	5,702	**Actual 1998 Cost:**	4,880
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	17,666	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**			477
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	18,143				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):		
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	18,143	
Additional Amount to Reconcile (+):	9,888	$10,047K Due to accurate depiction of baseline and ($158K) due to FY97Actual Costs escalation error

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Project **OH-AB-02 / Project Management, Site Services, ES&H**

Project Reconciliation

Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): **28,031**

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Draft Site Treatment Plan Update Submitted to USEPA	1		12/31/1998	12/31/1998		12/31/1998	Y				
Draft Site Treatment Plan Update Submitted to USEPA	2		12/31/1999	12/31/1999			Y				
Draft Site Treatment Plan Update Submitted to USEPA	3		12/31/2000	12/31/2000			Y				
Draft Site Treatment Plan Update Submitted to USEPA	4		12/31/2001	12/31/2001			Y				
Project Mission Complete	5		9/30/2005								
Draft Site Treatment Plan Update Submitted to USEPA.			12/31/2002	12/31/2002			Y				
Draft Site Treatment Plan Update Submitted to USEPA.			12/31/2003	12/31/2003			Y				
Draft Site Treatment Plan Update Submitted to USEPA.			12/31/2004	12/31/2004			Y				
Project Start			4/1/1993								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Draft Site Treatment Plan Update Submitted to USEPA	1						1	1	1		
Draft Site Treatment Plan Update Submitted to USEPA	2						1	1	1		
Draft Site Treatment Plan Update Submitted to USEPA	3						1	1	1		
Draft Site Treatment Plan Update Submitted to USEPA	4						1	1	1		
Project Mission Complete	5				Y	Y	1	1	1		
Draft Site Treatment Plan Update							1	1	1		

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Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Submitted to USEPA.											
Draft Site Treatment Plan Update Submitted to USEPA.							2	1	1		
Draft Site Treatment Plan Update Submitted to USEPA.							1	1	1		
Project Start		Y		Y			1	1	1		

Technology Needs

Site Need Code: OH-AB-901

Site Need Name: MICRO-encapsulation for Solidification/Immobilization

Focus Area Work Package ID: MW-04 **Focus Area Work Package:** Efficient Stabilization of High Metal Content Salts and Ash Waste

Focus Area: MWFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Salt and Ash Stabilization - Stabilize Waste using Phosphate Ceramic Process		
Polymer Microencapsulation		
Salt and Ash Stabilization - Stabilize High Salt Content Waste Using Cementitious Process		
Stabilization of Salt Using Encapsulation with Polyester Resin		
Salt and Ash Stabilization - Stabilize High Salt Content Waste Using Sol Gel Process		
Salt and Ash Stabilization - Stabilize Ash using Clemson´s Sintering Process		
Salt and Ash Stabilization - Stabilize High Salt Content Waste Using Polysiloxane Process		
Kinetic Mixer		

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Technology Needs

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	00194: AB-K - Soil MLLW	Y	N

Site Need Code: OH-AB-903

Site Need Name: Thermal Destruction with Molten Salt Oxidation (MSO)

Focus Area Work Package ID: MW-07 **Focus Area Work Package:** Alternatives to Incineration to Reduce Emission Hazards.

Focus Area: MWFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Direct Chemical Oxidation		

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	00192: AB-I - Other Liquids-Legacy FFCA	Y	N
	00193: AB-J - CAMU Groundwater	Y	N

Site Need Code: OH-AB-902

Site Need Name: MACRO-encapsulation for Solidification/Immobilization

Focus Area Work Package ID: MW-08 **Focus Area Work Package:** Facilitating Deployment for Unique Wastes

Focus Area: MWFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Stabilized Contaminants using Envirocare Polymer Macroencapsulation		

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	00194: AB-K - Soil MLLW	Y	N

Technology Needs

Site Need Code: OH-AB-904

Site Need Name: Compression Forming to Stabilize and Volume Reduce Soil

Focus Area Work Package ID: MW-08 **Focus Area Work Package:** Facilitating Deployment for Unique Wastes

Focus Area: MWFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both):

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate
Salt and Ash Stabilization - Stabilize Waste using Phosphate Ceramic Process		
Salt and Ash Stabilization - Stabilize High Salt Content Waste Using Cementitious Process		

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	00195: AB-L - Other-HEPA Filters	Y	N
	00194: AB-K - Soil MLLW	Y	N
	00185: AB-A1 - Contaminated Soil [Washed-Residuals]	Y	N

Site Need Code: OH-AB-905

Site Need Name: Electro-Thermal Plasma Treatment of Solids

Focus Area Work Package ID: MW-08 **Focus Area Work Package:** Facilitating Deployment for Unique Wastes

Focus Area: MWFA **Agree with Technology Link:** Y

Benefits (Cost, Risk Reduction, Both): Risk Reduction

Technologies	Cost Savings (in thousands of dollars)	Range of Estimate

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Technology Needs

Related CCP Milestones	Related Waste Streams	Agree?	Change?
	00194: AB-K - Soil MLLW	Y	N
	00191: AB-H - Sludge/Residue-Legacy	Y	N
	00185: AB-A1 - Contaminated Soil [Washed-Residuals]	Y	N